STANDARD CHANGE CATALOG (SCC)

SCC NUMBER: SCC #118

STANDARD CHANGE CATALOG TITLE: Addition of MIL-STD-2045-47001B, Message Subtype Table

ORIGINATOR and ADDRESS: Commanding Officer
NCTSI
53690 Tomahawk Dr Suite A125
San Diego CA 92147-5082
Carol McDonald-Gibson, NCTSI(N311) (619)553-7333
mcdonaldgibson@nctsi.navy.mil
Bill Pigg, Logicon, Inc (619)553-8504
bpigg@nctsi.navy.mil

ORIGINATOR'S INTERNAL NUMBER: NP01-006, Revision 2

AFFECTED DOCUMENT: MIL-STD-2045-47001B

PRECEDENCE: Routine

RECOMMENDATIONS:

ALLIED COORDINATION: None

RECORD OF PROCESSING

DATE:	ACTION:
29 Oct 01	Proposal
15 Jan 02	Work Item
15 Jan 02	Draft
15 Jan 02	Approved

1. STATEMENT OF THE PROBLEM: The MIL-STD-2045-47001B, Application Header, Message Subtype refers to VMF TIDP-TE, DFI/DUI 4170/001 Report/Message/Overlay Type for data items, however this DFI/DUI has been eliminated.

2. PROBLEM ANALYSIS: MIL-STD-2047-47001B Message Subtype field description refers to VMF TIDP-TE DFI/DUI 4170/001 for data items. During JMTCCB 01-3 TV01-040, Deletion of Report/Message/Overlay Type (DFI/DUI 7170/001) was deferred because of concerns regarding if MIL-STD-2045-47001B were used with VMF TIDP-TE (R5) then the 47001B Message Subtype field would not have a DFI/DUI to refer too. During Combat Net Radio Working Group (CNRWG) 01-2, service and system representatives agreed that they would never use MIL-STD-2045-47001B with VMF TIDP-TE (R5). Recently, Army CECOM began verifying an update to the VMF Integrated Database (VID) and noticed that an Army community is implementing 47001B and VMF TIDP-TE (R5). JMTCCB 01-4 approved TV01-040, which eliminated DFI/DUI 4170/001 from the VMF TIDP-TE (R4) and subsequent (R5). VMFSG 01-4 concluded that a Message Subtype Table (DFI/DUI 4170/001 data items) should be added to 47001B with appropriate modification to the associated description. During CNRWG 02-1 this SCC was approved as modified, revision 2 incorporates the removal of "MSB-LSB" from Table N1.

3. PROPOSED SOLUTION: See Attached pages.

4. ALTERNATIVE SOLUTIONS: None.

5. SYSTEM CHANGES REQUIRED: To be determined.

6. CONFIGURATION ITEM DOCUMENTATION CHANGES: MIL-STD-2045-47001B

7. IMPACT ON INTEROPERABILITY: To be determined.

8. IMPACT ON RELATED DOCUMENTS: To be determined.

9. IMPLEMENTATION DATES: To be determined.

10. OTHER CONSIDERATIONS: None.

11. REFERENCES: None.

12. TRs ADDRESSED IN THIS ICP: None.

5.6.5.2 Forwarded Message. The forwarding of a message is indicated by setting the UMF field to "4" (0100). The forwarded message (including its application header) is placed in the User Data portion of the application protocol data unit. When forwarding a message, all header and message body information of the forwarded message shall not be modified. Except as indicated below, all other fields in the Message Handling Repeatable Group (R3) are used as defined in Appendix A (VMF). For message forwarding, the GPI for the Message Identification Group (G4) shall be set to 0.

5.6.5.3 USMTF Messages. The format of USMTF messages is defined in MIL-STD-6040. The transfer of a USMTF file or data block is indicated by setting the code field to binary "5" (0101). The block of data being transferred is in USMTF format whose content is not dictated by the file system or software application resident in the interfacing host processors. For User Message Formats of this type the GPI for the Message Identification Group (G4) shall be set to 0.

5.6.5.4 DOI 103 Messages. The transfer of a DOI 103 file or data block is indicated by setting the code field to binary "6" (0110). The block of data being transferred is in USMTF format whose content is not dictated by the file system or software application resident in the interfacing host processors. For User Message Formats of this type the GPI for the Message Identification Group (G4) shall be set to 0.

5.6.6 Functional Area Designator field. This field shall contain a 4-bit binary codeword that identifies the functional area of a specific message using codewords. The Functional Area Designator combined with the Message Number field may be used to point to the applicable message of application processing. The applicable codes for this field depend on the setting of the User Message Format field (paragraph 5.6.4) and are specified in Appendix A as referenced in Table IV.

5.6.7 Message Number field This field shall contain a 7-bit binary codeword that represents the number that identifies a specific message within a functional area (see paragraph 5.6.5). The Message Number value shall range from 1 to 127. The message set depends on the setting of the User Message Format field (paragraph 5.6.4) and is specified in Appendix A as referenced in Table IV.

5.6.8 Message Subtype field This field shall contain a 7-bit binary codeword that represents the number that identifies a specific report within a message. The report set depends on the setting of the User Message Format field (paragraph 5.6.5) and is specified in Appendix A, ~~as referenced in~~ Table ~~IV~~N1.

5.6.9 File Name. The File Name field shall be a character coded, variable length field of up to 64 7-bit ANSI ASCII characters (448 bits). It indicates the name of the computer file or data block contained in the User Data portion of the application protocol data unit. The last four characters of the field may consist of a period followed by a three character ending, indicative of the file type (e.g., .txt, .doc, .exe, .bin). Special characters are legal. An ANSI ASCII Delete (1111111) may be used as an end of text marker .

5.6.10 Message Size field. This field shall contain a 20-bit binary number indicating the size, in bytes, of the associated message. Within the user data, a message which is not a multiple of 8 bits, shall be zero-filled so that it becomes a multiple of 8 bits . This field is required when there is more than one occurrence of the Message Handling Group (R3 in Table I).

5.6.11 Operation Indicator field. This field shall be a 2- bit binary codeword, as shown in Table V, indicating the operational function of the message used in support of either an operation, exercise, or simulation.

5.6.12 Retransmit Indicator field. This shall be a one bit field indicating whether a message is a retransmission. This field set to 1 shall affirm that the message is a retransmission. This field set to 0 shall indicate the negative.

5.6.13 Message Precedence field. This field shall be a 3-bit binary codeword indicating the relative precedence of a message as shown in Table VI.

APPENDIX A

APPLICATION HEADER FIELDS AND CODES FOR VARIABLE MESSAGE FORMATS

A.1 General

A.1.1 Scope. This appendix contains definition of the Variable Message Format (VMF) codes and values for application header fields that are dependent on the setting of the User Message Format field.

A.1.2 Application. This appendix is conditional based on the setting of the User Message Format field as indicated in paragraph 5.6.4 and Table IV of this standard. If the User Message Format field is set to "A2", this appendix is mandatory for application headers pertaining to VMF messages. For all other settings of User Message Format field, this appendix is optional.

A.2 Applicable Documents.

GOVERNMENT STANDARDS

None.

OTHER GOVERNMENT DOCUMENTS

Joint Interoperability of Tactical Command and Control Systems, Variable Message Format Technical Interface Design Plan (Test Edition) (VMF TIDP TE)

VOL I *VMF Overview*

VOL II *Data Element Dictionary*

VOL III *K-Series Message Formats*

Variable Message Format Interface Operating Procedures (VMF IOP)

A.3 Codeword Tables.

A.3.1 Unit Reference Number codewords. The VMF codes for the Unit Reference Number field shall be in accordance with the Joint VMF TIDP and assigned in accordance with the VMF IOP.

A.3.2 Functional Area Designator codewords. The VMF codes for the Functional Area Designator (FAD) field are defined in Table A-1. The FAD field is defined in paragraph 5.6.5 of this document. The combination of the FAD field and the Message Number field shall point to the message number that appears in the Message Descriptions of the Joint VMF TIDP, Volume III, Annex A. For example, if the USER MESSAGE FORMAT = 2 (VMF K-Series), FAD = 7 (Combat Service Support), and MESSAGE NUMBER = 1 (Medical Evacuation Request), then this corresponds to message number K07.1, Table A-1 `Message and Purpose Table' of the Joint VMF TIDP Volume III.

A.3.3 Message Number codewords. The VMF codes for the Message Number field are listed in Volume III of the Joint VMF TIDP. The Message Number field is defined in paragraph 5.6.6 of this document.

A.3.4 Message Subtype codewords. The VMF codes for the Message Subtype field are ~~listed in Volume II of the Joint VMF TIDP, Data Unit Identifier (DUI) REPORT/MESSAGE/OVERLAY TYPE~~ defined in Table N1. The Message Subtype field is defined in paragraph 5.6.8 of this document.

TABLE A-1. Functional Area Designator Codewords.

Functional Area	Code MSB - LSB
Network Control	0000
General Information Exchange	0001
Fire Support	0010
Air Operations	0011
Intelligence Operations	0100
Land Combat Operations	0101
Maritime Operations	0110
Combat Service Support	0111
Special Operations	1000
JTF Operations Control	1001
Air Defense/Air Space Control	1010
Undefined	1011-1111

TABLE N1. Message Subtype Table

Message Subtype	Code
Free Text	0
Bridge Report	1
Position Report	2
Medical Evacuation Request	3
Shell Report	4
OPORD	5
OPLAN	6
FRAGO	7
Warning Order	8
Call for Fire	9
End of mission and Surveillance	10
Message to Observer	11
Artillery Minefield	12
Observer Mission Update	13
Fire Support Coordination Measures	14
Ammunition Sites	15
Registration Data	16
Computer Met	17
Survey Control Point	18
Schedule of Fires	19
Target Data	20
Planned Mission Cancellation Request	21
Ammunition Inventory	22
Air Hazard Areas	23
Mission Clearance	24
Forecast Met	25
Fire Unit Status	26
Target Query/Standing Request for Information	27
Survey Control Point Information Request	28
Request for Clearance to Fire	29
Target Acquis ition Met	30
Close Air Support Request	31

Message Subtype	Code
Mission Request Rejection	32
Close Air Support Request Acceptance	33
Close Air Support Request Aircrew Briefing	34
Aircraft on Station	35
Aircraft Depart Initial Point	36
Aircraft Mission Update	37
Geographic Modification	38
Fire Plan Targets	39
Casualty Report	40
Spot Report	41
Salute Report	42
Contact Report	43
Engagement Report	44
Land Route Report	45
REDCON	46
MOPP	47
Threat Warning	48
Preposition Supply Report	49
Situation Report	50
Obstacle Report	51
Land Minefield Laying	52
NBC 1	53
NBC 2	54
NBC 3	55
NBC 4	56
NBC 5	57
NBC 6	58
Basic Wind Report	59
Chemical Downwind Report	60
Effective Downwind Report	61
Strike Warning	62
Logistics Report	63
Personnel Status Report	64
EPW/Detainee Evacuation Request/Response	65
Basic Weather Report	66
Initial Airborne Artillery Fire Control Radar (FCR) Engagement Report	67
Unit Reference Query/Response	68
Airborne Artillery Fire Control Radar (FCR) Report	69
CTIL	70
BRIL	71
CSS Overlay	72
Operations Overlay	73
Enemy Overlay	74
Fire Support Overlay	75
Higher Echelon Operations Overlay 1	76
Higher Echelon Operations Overlay 2	77
Current Operations Overlay	78
Future Operations Overlay	79
Air Space Coordination Overlay	80
Route Overlay	81
Range Card Overlay	82

Message Subtype	Code
Obstacle Overlay	83
Modified Obstacle Overlay	84
Combined Obstacle Overlay	85
Sector Identification Overlay	86
Planned Operation Overlay	87
Traffic Circulation and Control Overlay	88
Fire Plan Overlay	89
Target Overlay	90
Airborne Fire Mission	91
Information Request Message	92
Observer Readiness Report	93
Field Orders	94
Overlay Message	95
Operational Status	96
Launcher Request	97
Request for Report	98
Preliminary Fire Plan Targets	99
On-Call Targets List	100
Fire Support Mission Planning	101
Meteorological Support Request	102
Task Management	103
Call for Support	104
Task Order	105
Task Acknowledgement	106
Task Synchronization	107
Undefined	108 - 127